Figure 1

Y. 3

.i.

$$Br \longrightarrow N_{2} {}^{*}BF_{4}$$

$$CI \longrightarrow N_{2} {}^{*}BF_{4}$$

$$F \longrightarrow N_{2} {}^{*}BF_{4}$$

$$O_{2}N \longrightarrow N_{2} {}^{*}BF_{4}$$

$$HOOC \longrightarrow N_{2} {}^{*}BF_{4}$$

$$O_{2}N_{2} {}^{*}BF_{4}$$

$$O_{3}N_{2} {}^{*}BF_{4}$$

$$O_{4}N_{2} {}^{*}BF_{4}$$

$$O_{5}N_{2} {}^{*}BF_{4}$$

$$O_{5}N_{2} {}^{*}BF_{4}$$

$$O_{7}N_{2} {}^{*}BF_{4}$$

$$O_{8}N_{2} {}^{*}BF_{4}$$

$$O_{8}N_{2} {}^{*}BF_{4}$$

$$O_{8}N_{2} {}^{*}BF_{4}$$

· ·

a) TosCI, $\rm H_2O$, THF b) 4-nitrophenol, DMF, $\rm K_2CO_3$ c) $\rm H_2$, Pd/C d) NOBF₄, CH₃CN



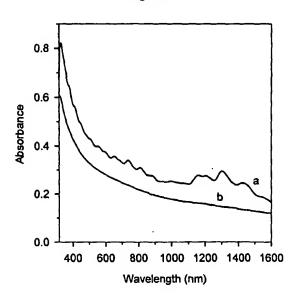


Figure 4

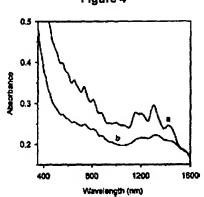
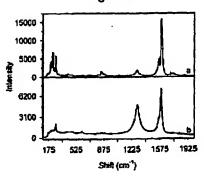
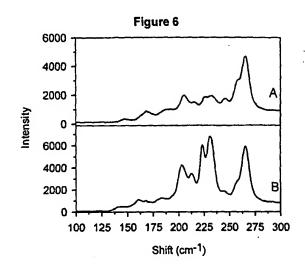


Figure 5



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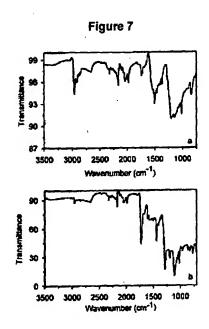
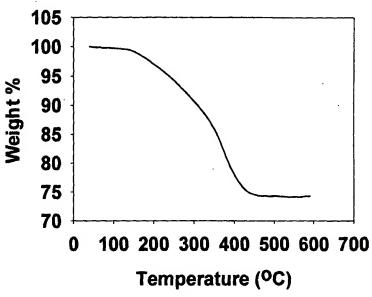


Figure 8

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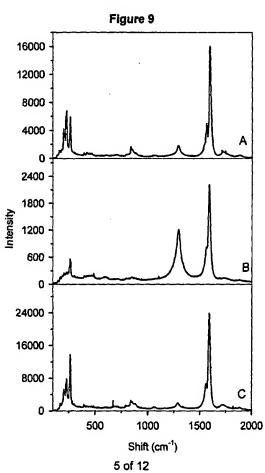


Figure 10

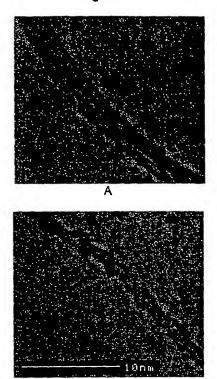


Figure 11

Figure 12

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Figure 13

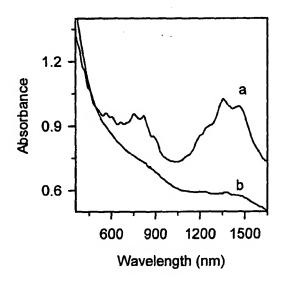


Figure 14

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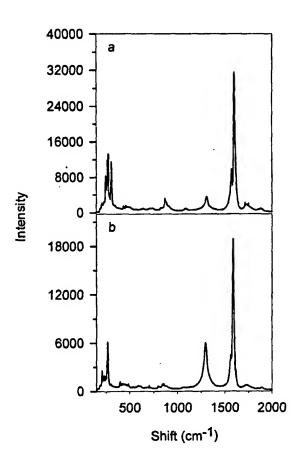
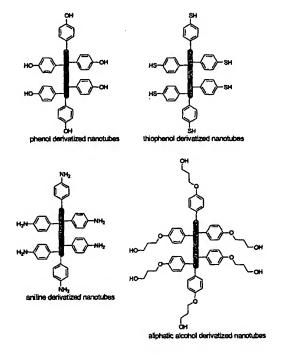


Figure 15

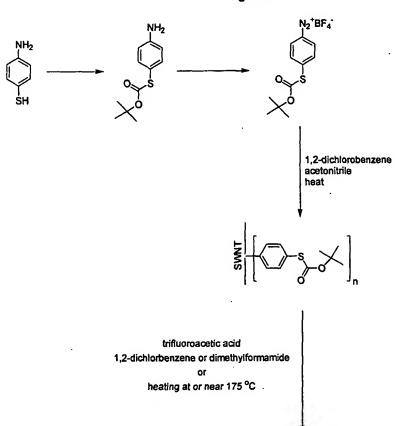
cured epoxy (thermoset) resin

Figure 17



Y. ...

Figure 19



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Cured thermoset resin in which the derivatized nanotubes act as a crosslinking egent by chemical reaction with the polymer matrix

Figure 23

$$NH_2$$
 base NH_2